

## **Historic, archived document**

Do not assume content reflects current scientific knowledge, policies, or practices.



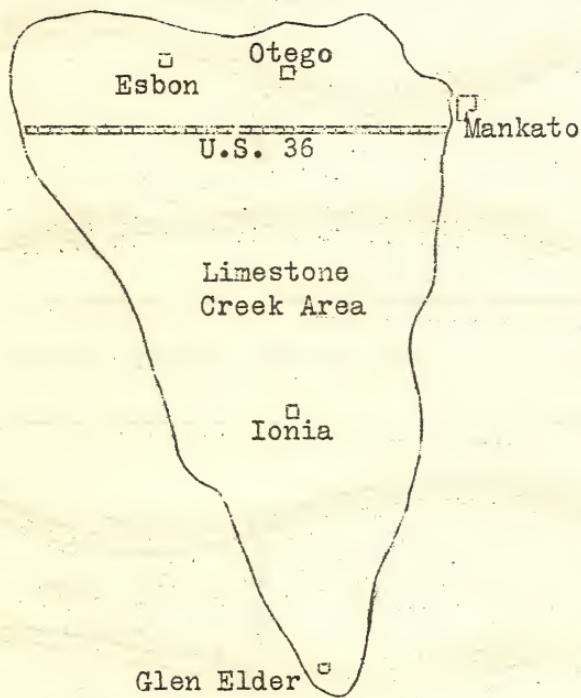
LIBRARY

RECEIVED

AUG 30 1935

U. S. Department of Agriculture

# KANSAS KONTOURS

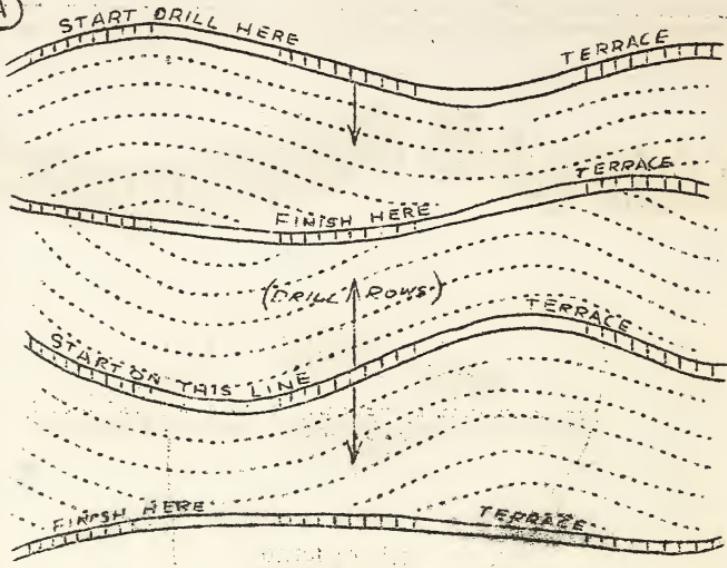


KANSAS SOIL EROSION SERVICE  
U.S. DEPARTMENT OF INTERIOR

NOVEMBER 1934

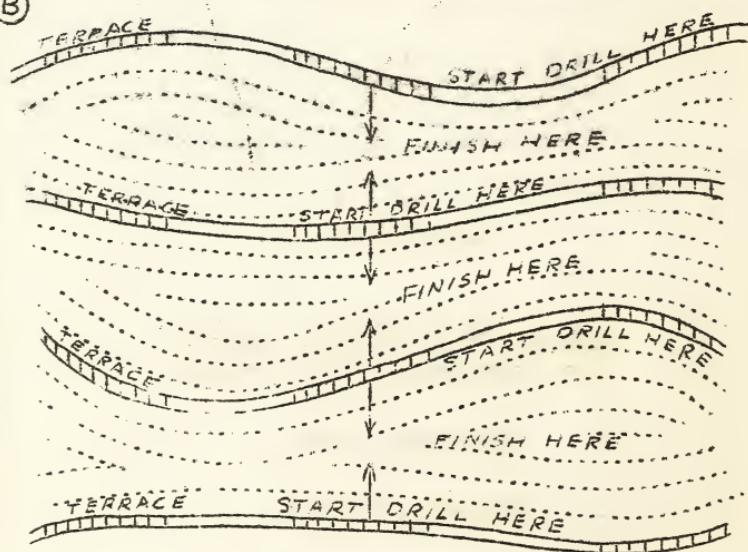
Mankato, Kansas

(A)



### METHODS OF CONTOUR LISTING

(B)



## AGRONOMY

George Shook, farmer in Esbon Township, says, "Contour farming is okay. It makes my hilly farm level, saves moisture, power and soil."

Limestone Valley fields are very dry. Someone will say, "That's no news." We agree at once, but let's think about conserving moisture for our crops next year.

Mother Nature will provide a certain amount of rain and snow between now and seeding time next spring. If we make no effort to retain that rain and snow where it falls, are we giving that fine Old Lady the kind of co-operation she deserves?

The Soil Erosion Service is sure that every co-operator who blank lists his idle land on the contour this fall will find that he has accomplished a great deal toward water conservation. At the same time, you will be protecting the terraces and terrace outlets while they are new and less able to carry large amounts of water without damage to the structures.

The diagram on the opposite page is to help you plan your blank listing on the contour. If you can use some personal assistance from the Soil Erosion Service Staff, be sure to call the office at Mankato. We are at your service.

## FARM PLANS COMPLETED

In this Area the agronomist makes the first plans on the farm and completes the agreement by securing the co-operator's signature. To date, 312 agreements have been signed involving 66,720 acres. Seven of these agreements were completed the last fifteen days of October. The agronomists are about through making these first plans.

As the opportunity for Soil Erosion Service is offered to only a few hundred farmers in the United States, each co-operator should feel that he is a part of the Government's Demonstrational Program. So if you have a neighbor, who is not

lined up with the Service, you should make it a point to talk with him. When he becomes interested, notify the Soil Erosion office or some of the men in the field, so that he may be interviewed by one of the agronomists.

#### AGRONOMISTS START REVISITATION

The agronomists have started revisiting farmers who have signed co-operative agreements. The farms upon which terracing work is completed are being visited first. This is done in order to assist in arranging field divisions along the terrace lines where this is practical. Then too, some crop plan changes may be necessary following this season of drought. In so far as possible, the acreage will be rechecked where new field divisions have been made.

Where sweet clover failed last spring, more should be seeded next spring although it may not be on the same land. Where land is properly prepared for alfalfa or evidence given that it will be so prepared, the acreage will be checked for spring alfalfa seed distribution.

Co-operators should blank list as much land as possible before the soil freezes for the winter. In this way, moisture will be conserved for spring planting. This applies to alfalfa, sweet clover and row crop land and land where trees are to be set.

Applications for ponds will also be taken by the agronomists.

#### FORESTRY PROJECT

The planting of trees for posts and firewood in connection with erosion control is meeting with the general approval of the farmers in the Soil Erosion Area. Mr. W. A. Copenhafer, Forester, on this Project has interviewed fifty-three farmers to date in regard to their forestry needs. Fifty-one of these farmers were anxious to avail them-

selves of an opportunity to secure trees for future economic and erosion control uses.

The purposes for which the trees are to be planted are as follows:

- (a) Replanting on creek lands to prevent stream cutting or erosion.
- (b) Plantings on eroding hill-sides for windbreaks, posts and firewood.
- (c) Planting of shrubs, such as wild plums or choke cherry in gullies to check erosion.

Trees to be used in this forestry program are either native to the region or those that are well adapted. The deciduous varieties include, Russian Olive, Osage Orange, Hackberry, Green Ash, American Elm, Chinese Elm, Catalpa, Russian Mulberry, Honey Locust, and Black Locust. The evergreens to be used include, Red Cedar and Western Yellow Pine.

These trees will be planted in the spring with labor from the CCC Camps located at Burr Oak, Lebanon, and Ionia.

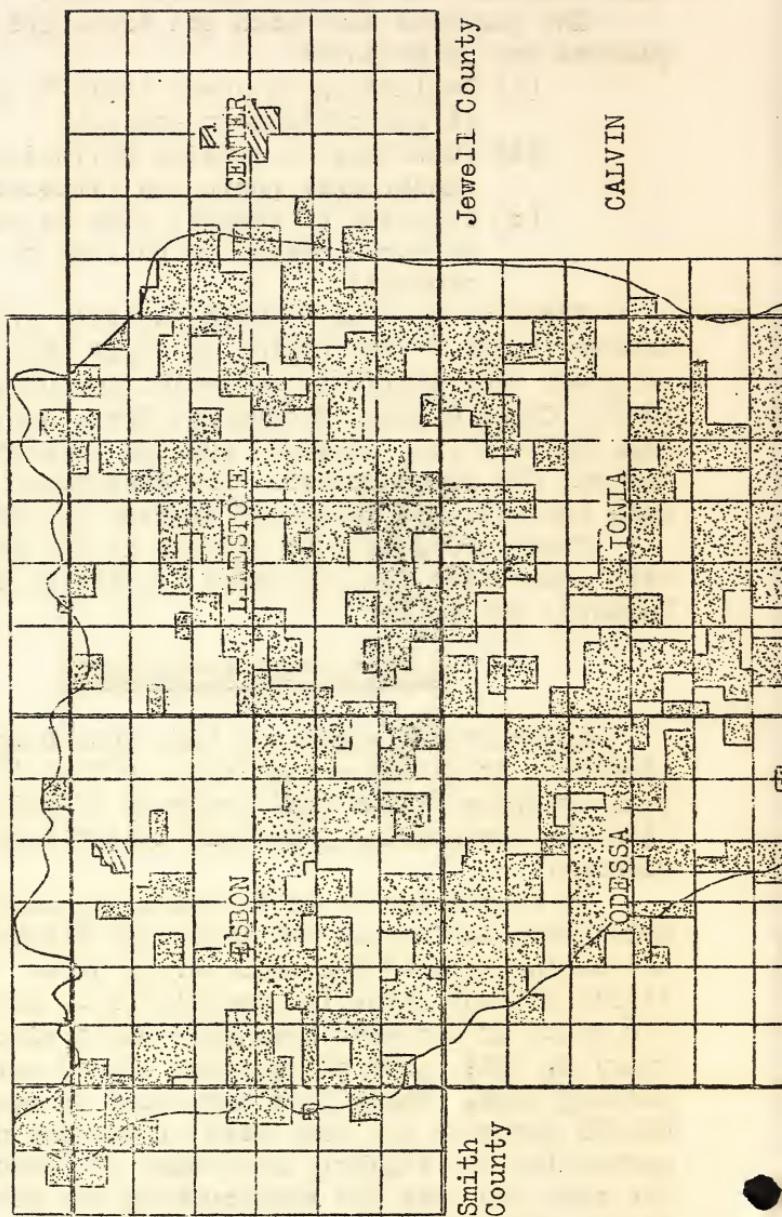
#### AGRICULTURAL ENGINEERING

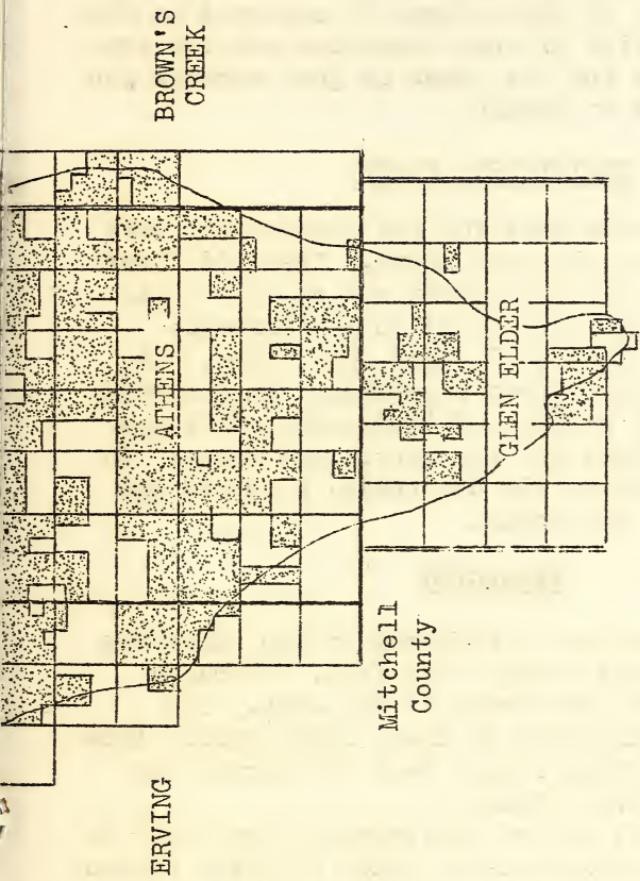
Agricultural engineers have been busy on the Limestone Area long enough now, so that it is plainly evident that real progress is being made with the engineering jobs that assist with erosion control.

It is getting to be increasingly difficult to drive very far within the Limestone Watershed without seeing some of the engineering jobs. Terraced fields attract attention immediately. More than 750 miles of terraces have been built since February 4, 1934, protecting about 16,000 acres of rolling land. These jobs have cost an average of \$28.60 per mile and each mile of terrace provides protection for slightly more than 22 acres of land. The cost per acre for constructing the terraces is \$1.29. The cost of doing the survey work for the terraces is about 46¢ an acre.

We recently prepared a tabulation of cost data

LIMESTONE CREEK DRAINAGE AREA





The shaded areas show the farms that are already  
cooperating with the Soil Erosion Service.

that shows 51% of the total cost of this terracing work is being paid locally for labor connected with our activities on this job.

We started a pond building program during October that is proving very popular. One section of 50 CCC men from each of three Camps is assigned to this work. The selection of pond locations and the preparation of plans for the ponds is just another job for our engineers to handle.

#### ENGINEERING PLANS

Plans have been made for the engineering work on 44 farms during the past month. These 44 farms comprise a total of 7,750 acres and of this total approximately 3,000 acres need to be terraced.

On these 44 farms, 27 ponds were found, but the majority of these need repairing. In general, pond dams cut out because of inadequate spillways and because the dams are too narrow and steep. In addition to repairing the old ponds, a desire was expressed for 10 new ponds.

#### TERRACING

The construction of terraces in the Limestone Area is progressing nicely this fall. Terraces have been built on 200 farms in the Area. The amount of work completed on these farms varies from two or three thousand lineal feet of terrace per farm to two or three miles.

The terraces, as now constructed, are built to standard specifications as to grade of water channel and to the volume of earth per lineal foot of terrace. The volume of earth in a terrace per lineal foot approximates quite closely seven tenths of a cubic yard. The grade of a terrace is variable from one tenth to four tenths of a foot fall per 100 feet of length.

The construction of terraces for the next month will be carried on in the southern part of the Area in Odessa, Ionia, and Athens Townships.

It is quite essential that the co-operators living in this particular area, who are desirous of having their terraces built this fall, get in touch immediately with the Soil Erosion office at Mankato if arrangements have not been made for the survey of your farms for terraces.

After terraces have been built on your farm, we want to stress the necessity of working the terrace ridges parallel to the terrace with a harrow.

#### GULLY CONTROL

Considerable progress is being made in gully control work in the Limestone Area. This work is part of the Soil Erosion Service granted to those who are co-operators in this Project. The purpose of this work is to eliminate ditches in the cultivated fields as much as possible, and to check the cutting of ditches that are located in permanent pastures. To date, these dams have been constructed of either brush or native limestone rock, the material used coming from the farm on which the work is being done, whenever such materials are available.

The type and size of dam used depends on the size of gully and the drainage area above the gully in question. Gullies up to a depth of six feet and less than eight feet wide are usually controlled with a brush dam using one row of posts. Gullies of larger dimensions require brush dams using two rows of posts. Rock dams are used only when the fill line of the gully is solid rock and it is impossible to dig post holes for the brush dams.

So far, this work has been carried on in Limestone Township and each section is completed as it is contacted. To date, thirty-five farms have been completed which represents twenty-two sections within the Area. On these farms the following number of dams have been constructed:

987 single row post-brush dams

20 Double row post-brush dams  
4 Rock dams

2,600 Square yards of bank sloping completed  
Since August 1, about 110 local men have been employed in this work two days per week. In addition to this, a section from each CCC Camp is now being organized to do gully control work.

#### GEOLOGICAL SURVEY

Automatic water stage recorders have been installed on Limestone Creek at the Emit Henningsen and Fred Van Wey farms. The purpose of these recorders is to determine the amount of run-off from the area that drains into the creek.

In connection with determining the run-off, hourly samples are taken during periods of run-off and analyzed to determine the amount of silt that is being carried down each stream. During the past several months little information has been gathered, due to the extreme drought. However, it has been an excellent time to install the various instruments and be in readiness for future rainfall.

#### TOURS

The Limestone Soil Erosion Control Area has truly become a Demonstrational Area. Since May 1, there have been sixteen planned tours with a total attendance of 1,782. Besides this, the attendance at the two Field Days in August was over 1,000. These people have come from 45 counties in Kansas and ten states. Hardly a week passes that somebody or a delegation does not come in unannounced and is taken over the Area.

This desire to see what is being done is indicative of the interest, which is being shown in all of the Soil Erosion Control Demonstrations.

SOIL EROSION STAFF

REGIONAL DIRECTOR

Dr. F.L. Duley

Agronomists

W.S. Speer  
E.H. Aicher

R.P. Ramsey  
E.T. Harden

Engineers

John S. Glass  
C.C. Martin  
C.A. Logan  
E.A. Taylor  
D.A. Bly

E.A. Cole  
P.R. Hoff  
R.N. Selby  
A.J. McCleery  
Harry Schmitt

Water Investigations

H.S. Peters

A.E. Mortenson

Soil Survey

Gordon B. Killinger

Calvin Dornberger

Chief Clerk

Robert S. Hughes

Clerks

Ralph O. Dundas

Camp Superintendents

V.B. Fredenhagen  
Robert P. Brooker  
Dewar F. Kyle

Burr Oak  
Lebanon  
Ionia

Stenographers

Delia Joerg  
Ella Headley

Evelyn Martin  
Arlene Henninger

